General instructions:
(a) All questions are compulsory.
(b) Question number 1 to 10 carry 2 marks each.
(c) Question number 11 to 20 carry 3 marks each.
(d) Question number 21 to 24 carry 5 marks each.
(e) Question number 24 to be done on the graph paper provided.

1. Write the natural numbers from 2 to 12. What fraction of them are prime numbers?
2. Give an expression for the following:
   (a) $y$ multiplied by 10 and then 7 added to the product.
   (b) $m$ is multiplied by 15 and result is subtracted from 25.
3. Write each of the following as decimals:
   (a) $600 + 2 + \frac{8}{10}$
   (b) $2\frac{3}{4}$
4. The length of rectangle is 4 metres less than 3 times of the breadth of rectangle. What is the length, if breadth is $b$ metres?
5. Name the following. Also sketch a rough figure in each case:
   (a) A triangle having exactly one line of symmetry.
   (b) A polygon having exactly two lines of symmetry.
6. The area of a rectangular garden 50 m long is 300 sq. m. Find the width of the garden.
7. Lata spent Rs 9.50 for buying a pen and Rs 2.50 for a pencil. How much money did she spend?
8. Find two equivalent fractions of each of the following:
   (a) $\frac{2}{3}$
   (b) $\frac{5}{9}$

P.T.O.
9. **Answer the following:**

Take Sarika's present age to be 'y' years.

(a) Sarika's grandfather is 6 times her age and her grandmother is 2 years younger than grandfather. What is her grandmother's age?

(b) Sarika's father age is 5 years more than 3 times Sarika's age. What is her father's age?

10. Find the perimeter of a rectangle whose length and breadth are 150 cm and 1 m respectively.

11. Ekta is asked to collect data for size of shoes of 33 students in her class. Her findings are recorded in the manner shown below:

    5 4 7 5 6 7 6 5 6 6 5
    4 5 6 8 7 9 6 5 6 4 6
    5 7 6 7 5 7 6 4 8 7 9

Prepare a frequency distribution table for above data using tally marks.

12. Rahul bought 4 kg 90 g of apples, 2 kg 60 g of grapes and 5 kg 300 g of mangoes. Find the total weight of all the fruits he bought.

13. Pick out the solution from the values given in the bracket next to the equation. Show that the other values do not satisfy the equation:

    \[ x + 12 = 20 \quad (12, 8, 20) \]

14. Draw a circle of radius 3.2 cm and mark points A, B and C such that:

    (a) A is on the circle.
    (b) B is in the interior of the circle.
    (c) C is in the exterior of the circle.

15. Ashish drinks \(8 \frac{3}{4}\) litres of water. Priya drinks \(8 \frac{1}{2}\) litres of water in a day. Who drinks more water and by how much?

16. Simplify:

    \[ 8 \frac{1}{4} - 2 \frac{5}{6} \]
17. Complete the table and find the solution of the equation \( m - 7 = 3 \).

<table>
<thead>
<tr>
<th></th>
<th>6</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>( m - 7 )</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. Find the cost of fencing a rectangular park of the length 250 m and breadth 175 m at the rate of Rs 12 per metre.

19. Express:
   (a) 15 cm as metres using decimals.
   (b) 388 m as km using decimals.
   (c) 5 paise as rupees using decimals.

20. The following are the number of electric bulbs purchased for a lodging house during the first six months of a year.

<table>
<thead>
<tr>
<th>Months</th>
<th>No. of Bulbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>20</td>
</tr>
<tr>
<td>February</td>
<td>30</td>
</tr>
<tr>
<td>March</td>
<td>25</td>
</tr>
<tr>
<td>April</td>
<td>30</td>
</tr>
<tr>
<td>May</td>
<td>15</td>
</tr>
<tr>
<td>June</td>
<td>10</td>
</tr>
</tbody>
</table>

Represent the details by a pictograph using one symbol \( \oplus \) to represent 5 bulbs.

21. (a) Construct \( \angle POQ \) of measure 120° with ruler and compass.
   (b) Draw a circle with centre C and radius 3.4 cm. Draw any chord AB. Construct the perpendicular bisector of AB and examine if it passes through C.

22. How many tiles whose length and breadth are 12 cm and 5 cm respectively will be needed to fit a rectangular region whose length and breadth are 100 cm and 144 cm. Find the cost of tiles, if the cost of one tile is Rs 5.

23. Ankit travels 20 km 50 m everyday. Out of this, he travels 2 km 300 m by rickshaw, 8 km 900 m by bus and the rest by car. How much distance does he travel by car?
24. The number of Mathematics books sold by a shopkeeper on six consecutive days is shown below:

<table>
<thead>
<tr>
<th>Days</th>
<th>No. of books sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>65</td>
</tr>
<tr>
<td>Monday</td>
<td>40</td>
</tr>
<tr>
<td>Tuesday</td>
<td>30</td>
</tr>
<tr>
<td>Wednesday</td>
<td>50</td>
</tr>
<tr>
<td>Thursday</td>
<td>20</td>
</tr>
<tr>
<td>Friday</td>
<td>70</td>
</tr>
</tbody>
</table>

Draw a bar graph to represent the above information choosing the scale of your choice. Also find the difference between the number of books sold on
(a) Sunday and Friday
(b) Monday and Tuesday
APeeJay COMMON EXAMINATION, 2012
CLASS – VI
MATHEMATICS (MCQ)
SET-I
SUMMATIVE ASSESSMENT II

TIME ALLOWED : 15 Min.
MAXIMUM MARKS : 10

General instructions:
(a) All questions are compulsory.
(b) Answers to be marked on question paper itself.
(c) Choose the correct option.

1. In a pictograph if a symbol * represents 10 flowers in a basket then *** stands for
   (a) 28  (b) 25  (c) 20  (d) 30

2. Perimeter of a triangle with 4.5 cm, 6.02 cm and 5.38 cm is
   (a) 15.9 cm  (b) 1.59 cm  (c) 11.4 cm  (d) 159 cm

3. Equation for statement: “Thrice of the length of a room is 340 m”.
   (a) 3l – 430  (b) 3l = 340  (c) 3 + l = 340  (d) None

4. Which of the following letters does not have any line of symmetry?
   (a) E  (b) T  (c) N  (d) X

5. Which of the following angles cannot be constructed using ruler and compass?
   (a) 75°  (b) 15°  (c) 135°  (d) 85°

6. The fraction is not equal to \( \frac{40}{50} \) is
   (a) \( \frac{40}{50} \)  (b) \( \frac{12}{15} \)  (c) \( \frac{16}{20} \)  (d) \( \frac{9}{15} \)

R/2  [P.T.O.]
7. 0.7625 lies between
   (a) 0.7 and 0.76
   (b) 0.77 and 0.78
   (c) 0.76 and 0.761
   (d) 0.76 and 0.763

8. Area of square of side 5 cm is
   (a) 25 sq. cm
   (b) 20 sq. cm
   (c) 24 sq. cm
   (d) None

9. The mixed fraction \( \frac{4}{7} \) can be expressed as
   (a) \( \frac{33}{7} \)
   (b) \( \frac{39}{7} \)
   (c) \( \frac{33}{4} \)
   (d) \( \frac{39}{4} \)

10. \[ 4.55 + 9.73 = \]
    (a) 14.20
    (b) 1.428
    (c) 14.28
    (d) 13.28
General instructions:
(a) All questions are compulsory.
(b) Answers to be marked on question paper itself.
(c) Choose the correct option.

1. \[4.55 + 9.73 = \]
(a) 14.28  (b) 13.28  
(c) 1.428  (d) 14.2

2. Which of the following fractions is the greatest?
(a) \(\frac{5}{7}\)  (b) \(\frac{5}{6}\)  
(c) \(\frac{5}{9}\)  (d) \(\frac{5}{8}\)

3. Which of the following letters does not have the vertical line of symmetry?
(a) M  (b) H  
(c) E  (d) V

4. Which of the following angles cannot be constructed using ruler and compass?
(a) 90°  (b) 85°  
(c) 60°  (d) 120°

5. Which of the following represents \(x \times 6\)
(a) \(6x\)  (b) \(\frac{x}{6}\)  
(c) \(6 + x\)  (d) \(6 - x\)
6. Perimeter of a rectangle of length 4.5 cm and breadth 2.5 cm is
   (a) 14 cm         (b) 13 cm
   (c) 12.5 cm       (d) 13.5 cm

7. Value of x in $3x + 1 = 4$ is
   (a) 1            (b) 3
   (c) 5            (d) 7

8. $580 \text{ kg} + 9 \text{ g} =$
   (a) 580.9 kg     (b) 580.09 kg
   (c) 580.009 kg   (d) 5.809 kg

9. When $\frac{1}{4}$ is written with denominator as 12 and its numerator is
   (a) 8           (b) 24
   (c) 3           (d) 12

10. A __________ represents data through pictures of objects.
    (a) Pictograph   (b) Bar Graph
    (c) Data         (d) Frequency
General instructions:
(a) All questions are compulsory.
(b) Answers to be marked on question paper itself.
(c) Choose the correct option.

1. The perimeter of a regular pentagon with each side measuring 8 m is
   (a) 40 m          (b) 45 m
   (c) 48 m          (d) 16 m

2. Equation for statement: "Half of a number added to 10 is 15".
   (a) \( \frac{x}{2} + 10 = 15 \)  (b) \( \frac{x}{2} + 15 = 10 \)
   (c) \( \frac{x}{2} + 10 = 5 \)  (d) \( \frac{x}{2} = 10 + 15 \)

3. A ________ is a collection of a number gathered to give some meaningful information.
   (a) Pictograph  (b) Tally
   (c) Data        (d) Bars

4. The digit 7 in the number 952.007 is at ________ place.
   (a) Tens  (b) Thousandths
   (c) Hundreds (d) Tenths

5. Which of the following letters does not have any line of symmetry?
   (a) E  (b) T
   (c) N  (d) X
6. 0.7625 lies between
   (a) 0.7 and 0.76  (b) 0.77 and 0.78
   (c) 0.76 and 0.761  (d) 0.76 and 0.763

7. The mixed fraction $7\frac{4}{5}$ can be expressed as
   (a) $\frac{33}{7}$  (b) $\frac{39}{5}$
   (c) $\frac{33}{5}$  (d) $\frac{39}{7}$

8. Area of a rectangle of length 4 cm and breadth 2.5 cm is
   (a) 100 cm$^2$  (b) 10 cm$^2$
   (c) 8.5 cm$^2$  (d) 6.5 cm$^2$

9. Which of the following fractions is the smallest?
   (a) $\frac{5}{7}$  (b) $\frac{5}{6}$
   (c) $\frac{5}{9}$  (d) $\frac{5}{8}$

10. Which of the following angles cannot be constructed using ruler and compass?
    (a) 120°  (b) 73°
     (c) 30°  (d) 90°